REMARKS

This Amendment responds to the Office Action dated November 3, 2005 in which the Examiner required a new title, rejected claim 12 under 35 U.S.C. §102(b), rejected claim 1-2, 4-6 and 11 under 35 U.S.C. §103 and stated that claims 3 and 7-10 would be allowable.

Applicants respectfully point out to the Examiner that although priority has been acknowledged, Applicants believe that box 12a3 should be indicated rather than box 12a1. Applicants respectfully request the Examiner provide a new acknowledgement of the priority documents.

As indicated above, a new title has been provided which clearly indicates the invention to which the claims are directed. Therefore, Applicants respectfully request the Examiner approves the new title.

Claim 1 claims an optical semiconductor package for packaging therein an optical semiconductor element, comprising a stem, a dielectric and a pair of high frequency signal pins. The stem has a hole. The dielectric is sealed into the hole of the stem, and has a pair of pin insertion holes. The pair of high frequency signal pins penetrate through and fit into the pair of pin insertion holes of the dielectric, and constitute differential lines electrically connected to the optical semiconductor element. The pair of high frequency signal pins are coupled by an electric field coupling each other. One of the high frequency signal pins extracts a positive-phase current signal and the other high frequency signal pin applies a current signal opposite in phase to the positive-phase current signal.

Through the structure of the claimed invention a) having a pair of high frequency signal pins penetrate through a pair of pin insertion holes formed in a

(single) dielectric in a (one) hole and b) the pair of high frequency signal pins constitute differential lines and c) the pair of high frequency signal pins are coupled by an electric field coupling each other, one of the high frequency signal pins extracts a positive-phase current signal and the other high frequency signal pin applies a current signal opposite in phase to the positive-phase current signal as claimed in claim 1, the claimed invention provides an optical semiconductor package having superior high frequency transmission characteristics and a high-rate of operation. The prior art does not show, teach or suggest the invention as claimed in claim 1.

Claim 12 claims an optical semiconductor package that contains an optical semiconductor element and an integrated circuit which transmits and receives differential signals to and from the optical semiconductor element. The optical semiconductor package comprises a dielectric and a pair of signal pins. The dielectric is sealed into and fixed to a wall surface of the package, and has a pair of pin insertion holes. The pair of signal pins penetrate through and fit into the pair of pin insertion holes, and constitute differential lines wherein differential signals are transmitted and received to and from the integrated circuit through the pair of signal pins. The pair of signal pins are coupled by an electric field coupling each other. One of the signal pins extracts a positive-phase current signal and the other signal pin applies a current signal opposite in phase to the positive-phase current signal.

Through the structure of the claimed invention having a) a dielectric with a pair of pin insertion holes through which a pair of signal pins penetrate and which constitute differential lines and b) the pair of signal pins are coupled by an electric field coupling each other, one pin extracts a positive-phase current signal and the

other pin applies a current signal opposite in phase to the positive-phase current signal, as claimed in claim 12, the claimed invention provides an optical semiconductor package with superior high frequency transmission characteristics and a high-rate operation. The prior art does not show, teach or suggest the invention as claimed in claim 12.

Claim 12 was rejected under 35 U.S.C. §102(b) as being anticipated by *Oikawa* (U.S. Patent No. 6,074,102).

Oikawa appears to disclose an optical device having a package structure fit for characteristic impedance matching and grounding enhancement in an optical receiver. (col. 1, lines 8-10) The base member 30 has through holes 30C and 30D extending from the first surface 30A to the second surface 30B. The signal terminal 28 is inserted through the hole 30C and fixedly held in coaxial relationship with the hole 30C by a glass paste GP filling the hole 30C. Similarly, a bias or low-speed signal terminal 32 is inserted through the hole 30D and fixedly held in coaxial relationship with the hole 30D by a glass paste GP filling the hole 30D. (col. 3, lines 27-34)

Thus, *Oikawa* merely discloses a signal terminal 28 and a low-speed signal terminal 32. Nothing in *Oikawa* shows, teaches or suggests a pair of high frequency signal pins are coupled by an electric field coupling each other as claimed in claim 12 (and claim 1). Rather, *Oikawa* merely discloses a signal terminal 28 and a low-speed signal terminal 32 (i.e., *Oikawa* does not show, teach or suggest that one transmitted signal is output by a pair of signal pins, but only discloses signal terminal 28 and low-speed signal terminal 32 output different signals respectively).

Furthermore, *Oikawa* merely discloses base member 30 and ground pin 32 exists between the signal terminal 28 and the low-speed signal terminal 32. Nothing in *Oikawa* shows, teaches or suggests one of the high frequency signal pins extracts a positive-phase current signal and the other high frequency signal pin applies a current signal opposite in phase to the positive-phase current signal as claimed in claims 12 (and claim 1). Rather, *Oikawa* only discloses that the base member 30 and ground pin 32 exists between the signal terminal 28 and the low-speed signal terminal 32.

Finally, *Oikawa* merely discloses that each of the pair of pin insert holes 30E is formed into two dielectrics GP respectively. However, as claimed in claim 12 (and claim 1), both of the pin insertion holes are formed into one dielectric.

Since nothing in *Oikawa* shows, teaches or suggests a) a pair of high frequency signal pins coupled by an electric field coupling each other, b) one of the high frequency signal pins extracts a positive-phase current signal and the other high frequency signal pin applies a current signal opposite in phase to the positive-phase current signal and c) forming both pin insertion holes into a (one) dielectric as claimed in claim 12, Applicants respectfully request the Examiner withdraws the rejection to claim 12 under 35 U.S.C. §102(b).

Claims 1, 2, 4-6 and 11 were rejected under 45 U.S.C. §103 as being unpatentable over *Oikawa*.

As discussed above, *Oikawa* merely discloses a signal terminal 28 and a low-speed signal terminal 32 output different signals respectively. Nothing in *Oikawa* shows, teaches or suggests a pair of high frequency signal pins are coupled by an electric field coupling each other as claimed in claim 1.

Furthermore, *Oikawa* merely discloses base member 30 and ground pin 32 exist between the signal terminal 28 and the low-speed signal terminal 32. Nothing in *Oikawa* shows, teaches or suggests one of the high-frequency signal pins extracts a positive-phase current signal and the other high frequency signal pin applies a current signal opposite in phase to the positive-phase current signal as claimed in claim 1.

Finally, *Oikawa* merely discloses that each of the pair of pin insertion holes 30E are formed into two dielectrics respectively. Nothing in *Oikawa et al.* shows, teaches or suggests both of the pair of pin insertion holes are formed into one dielectric as claimed in claim 1.

Since nothing in *Oikawa* shows, teaches or suggests the invention as claimed in claim 1, Applicants respectfully request the Examiner withdraws the rejection to claim 1 under 35 U.S.C. § 103.

Claims 2, 4-6 and 11 depend from claim 1 and recites additional features. Applicants respectfully submit that claims 2, 4-6 and 11 would not have been obvious within the meaning of 35 U.S.C. §103 over *Oikawa* at least for the reasons as set forth above. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 2, 4-6 and 11 under 35 U.S.C. §103.

Since objected to claims 7 and 8 depend from allowable claims, Applicants respectfully request the Examiner withdraws the objection thereto.

Thus, it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested. Should the Examiner find that the application is not now in condition for

allowance, Applicants respectfully request the Examiner enters this Amendment for purposes of Appeal.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

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